## REMARKS/ARGUMENTS

Claims 1-51 are pending in the present application.

This Amendment is in response to the Office Action mailed May 28, 2004. In the Office Action, the Examiner rejected claims 1-8, 10-18, 20-28, 30-38, 40-48, and 50 under 35 U.S.C. §102(e); and claims 9, 19, 29, 39, and 49 under 35 U.S.C. §103(a). Claims 3, 5-7, 9, 13, 16, 17, 19, 26, 27, 29, 33, 36, 37, 39, 41, 43, 44, and 46-50 have been amended to correct minor informalities. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

### *Rejection Under 35 U.S.C. § 102*

1. In the Office Action dated May 28, 2004, the Examiner rejected claims 1-8, 10-18, 20-28, 30-38, 40-48, and 50 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,959,972 issued to Hamami ("Hamami"). Applicants respectfully traverse the rejection and contends that the Examiner has not met the burden of establishing a prima facie case of anticipation. Applicants reiterate the arguments set forth in the previously filed Response to the Office Action.

Hamami discloses a method of port/link redundancy in an ATM switch. Two ATM switches are connected by two separate parallel communication links: a main link and a backup link (Hamami, col. 4, lines 29-33). A virtual circuit is established between the two stations (Hamami, col. 5, lines 39-41). The virtual circuit is established between one station and the backup link (Hamami, col. 5, lines 44-46).

Hamami does not disclose, either expressly or inherently, (1) a loop-back path connecting a first node and a second node where the first node has primary and secondary connections; and (2) the secondary connection not using network bandwidth in normal mode. Hamami merely disclosed a virtual circuit located within the switch matrix to connect one station to the part of a backup link (Hamami, col. 5, lines 44-46). This virtual circuit therefore merely acts to direct the traffic to the backup link upon failure (Hamami, col. 5, lines 49-51). Hamami does not disclose a loop-back path to connect a first node having primary and secondary connections to a second node. Hamami merely discloses a virtual circuit to connect the traffic from the main link to the backup link. A keep alive virtual circuit is established between the backup link ports (Hamami,

col. 5, lines 58-60). All traffic directed to the main link port is duplicated to the backup link port (Hamami, col. 6, lines 1-2). Therefore, the backup link uses the network bandwidth.

In the Office Action dated May 28, 2004, the Examiner addresses two issues in Applicants' arguments. Applicants would like to discuss these issues below.

a) Loop-back path:

In response to Applicants' arguments, the Examiner states that the teaching of traffic using the specific path for redirection meets the limitation "loop-back path." The Examiner further states that "[i]f there is a distinct and novel meaning to the claimed loop-back path, it has not been claimed. The loop-back path shown in Figures 1 and 2...is shown as a semi-circle in the path connecting second node and switch element, and does not show any specific operational aspect of loop-back." (Office Action, page 5). Applicants respectfully disagree.

Hamami merely discloses a virtual circuit being established between station #1 and port #2, represented by dashed line 114 (Hamami, col. 5, lines 44-46). The dashed line 114 is part of the switch matrix. The switch matrix provides the switching functionality for the virtual circuits set up by the controller (Hamami, col. 5, lines 20-21). The dashed line 114, therefore, is not a loop-back path. A loop-back path, by definition, is a mechanism whereby a duplex communication path may be connected back upon itself so that the digits sent on the transmit path are returned on the receive path. Applicants are submitting this definition in the Appendix. The loop-back path used in conjunction with the connectivity monitor would provide a connectivity status between the two nodes.

b) Secondary connection not using network bandwidth during normal mode:

The Examiner states that the keep alive virtual circuit is a virtual circuit established in addition to the backup virtual circuit for detection and maintenance purpose (Office Action, page 6). However this argument is not relevant to Applicants' contention that the keep alive virtual circuit does use the backup connection.

This virtual circuit is used to exchange information, e.g. keep alive messages on a periodic basis between both backup link ports (Hamami, col. 6, lines 32-34). The failure of the main link is detected when one or both of the backup link ports fail to receive a keep alive message from its peer backup link port (Hamami, col. 6, lines 39-41). Therefore, the backup link connection uses network bandwidth during the normal mode.

The Examiner further states that the portion of the teaching in Hamami that Applicants rely on is not a relevant portion of the teaching which is applicable to the bandwidth usage because that portion describes a virtual circuit setup state (Office Action, page 6). Applicants respectfully disagree. Hamami discloses that there are two phases, the first phase is the setting up of the virtual circuits between the two switches at call establishment time, and the second phase occurs when a failure is detected (Hamami, col. 5, lines 29-34). Since Hamami discloses that there are only two phases, one is the setting up and one is when the failure is detected, it is clear that the setting up is the normal mode, or at least part of the normal mode. During this normal mode, all traffic directed to the main link port is duplicated to the backup link port (Hamami, col. 6, lines 1-2).

The Examiner further supports the argument by citing Hamami that "once the virtual circuits have been established, all ingress traffic at the backup link port is blocked until a main link failure event occurs" (Hamami, col. 6, lines 14-16). Applicants respectfully disagree. First Hamami does not disclose that the normal mode excludes the setting up phase of establishing the virtual circuits, as discussed above. Second, Hamami merely discloses that the ingress traffic at the backup link port is blocked. Hamami does not disclose that the backup connection is not used. In fact, the fact that the backup link port is blocked even proves that the backup connection is used. Further, Hamami even explicitly states that the backup connection is used for the transmission of the keep alive messages (Hamami, col. 6, lines 39-41).

For the similar reasons, dependent claims 2-10, 12-20, 22-30, 32-40, which depend on independent claims 1, 11, 21 and 31, respectively, are distinguishable from the cited prior art references. Therefore, Applicants believe that independent claims 1, 11, 21, 31 and their respective dependent claims are distinguishable over Hamami. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §102(e) be withdrawn.

***Rejection Under 35 U.S.C. § 103***

1. In the Office Action dated may 28, 2004, the Examiner rejected claims 9, 19, 29, and 39 under 35 U.S.C. §103(a) as being unpatentable over Hamami in view of U.S. Patent No. 5,838,924 issued to Anderson et al. ("Anderson"). Applicants respectfully traverse the rejection and contend that the Examiner has not met a burden of establishing a prima facie case of

obviousness. Applicants reiterate the arguments set forth in the previously filed Response to the Office Action.

Hamami discloses a method of port/link redundancy in an ATM switch as discussed above.

Anderson discloses an asynchronous transfer mode (ATM) connection protection switching apparatus and method. A virtual path group (VPG) includes a working route, a protection route, and VPG bridge and selector functions at each end of the routes (Anderson, col. 1, lines 52-54). An ATM operations and maintenance (OAM) fault management cell is used to indicate defect type (Anderson, col. 5, lines 58-60).

Hamami and Anderson, taken alone or in any combination, does not disclose, suggest, or render obvious: (1) a loop-back path connecting a first node and a second node where the first node has primary and secondary connections, (2) secondary connection not using network bandwidth in normal mode, (3) the failure condition being detected by a network monitor, and (4) the network monitor is one of an OAM monitor and a call release procedure. There is no motivation to combine Hamami and Anderson because neither of them addresses the problem of using a loop-back path. There is no teaching or suggestion that an OAM monitor is used in a re-routing circuit having a loop-back path and a secondary connection not using network bandwidth in normal mode as discussed above under the §102 rejection. Hamami, read as a whole, does not suggest the desirability of a loop-back path. Hamami does not disclose or suggest that the secondary connection not using network bandwidth in normal mode. In fact, Hamami teaches away from the invention by disclosing that the keep alive messages are transmitted on the backup virtual circuit between the backup link ports, thus using the network bandwidth. Anderson merely disclosed an OAM fault management cell to indicate defect type (Anderson, col. 5, lines 58-60), not a monitor to detect a failure condition in a circuit having a loop-back path. In addition, neither Hamami nor Anderson discloses a call release procedure.

Therefore, Applicants believe that independent claims 1, 11, 21, 31 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicants respectfully request the rejections under 35 U.S.C. §102(e), and 35 U.S.C. §103(a) be withdrawn.

***Conclusion***

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: August 26, 2004 By _____

Thinh V. Nguyen
Reg. No. 42,034
Tel.: (714) 557-3800 (Pacific Coast)

12400 Wilshire Boulevard, Seventh Floor
Los Angeles, California 90025

## *Appendix*



# digital loopback

**digital loopback:** A mechanism incorporated into a terminal or into equipment in the network whereby a duplex communication path may be connected back upon itself so that the digits sent on the transmit path are returned on the receive path. [After T1.206-1994] *Note:* Loopback tests should be used only to check for circuit continuity and not for more subtle performance problems.

These definitions were prepared by ATIS Committee T1A1. For more information on the work related to these definitions, please visit the ATIS website.

This HTML version of Telecom Glossary 2K was last generated on February 28, 2001. References can be found in the Foreword.